REMARKS

Claims 6 and 11 stand rejected under 35 U.S.C. § 112, second paragraph and claims 1-11 stand rejected under 35 U.S.C. § 101. These rejections are respectfully traversed, but are nonetheless rendered moot by the enclosed amendment which obviates the Examiner's alleged objections and which have been made without prejudice/disclaimer to the subject matter in the amended claims. Support for the amendments can be found, for example, on page 27 (S104 as exemplary embodiment) and page 33 (S206 and S207 as exemplary embodiments) of Applicants' specification. Accordingly, it is respectfully requested that these rejections be withdrawn.

Claims 1-11 stand rejected under 35 U.S.C. § 102 as being anticipated by Palem. This rejection is respectfully traversed for the following reasons.

Claim 1 recites in pertinent part, "an execution timing decision step of deciding an execution timing of an instruction having a highest priority *based on the priority of each of the plurality of instructions, wherein each of the constraints is whether a corresponding hardware resource is capable of processing an instruction and a succeeding instruction which is dependent on the instruction in parallel*" (emphasis added). Palem, on the other hand, only discloses *generally* that deciding the execution timing of the instruction is to be based on data dependencies and allocable registers (*see* pages 27 and 29 of Palem). In other words, Palem does not disclose *specifically* how the execution timing of the instruction is decided based on data dependencies and allocable registers, let alone suggest the specific manner set forth in claim 1.

Indeed, Palem is directed to a method which uses a uni-processor rather than a parallel processor as can be used by the present invention. As such, Palem is unrelated to determining whether a corresponding hardware resource is capable of processing an instruction and a

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succeeding instruction which is dependent on the instruction in parallel. In this regard, newly added claim 12 recites in pertinent part, "an instruction scheduling method *used in a parallel processor*" (emphasis added) and is submitted to be patentable over Palem for at least this reason along with the reasons set forth above regarding claim 1. Claims 7 and 9 recite features similar to claim 1 and are submitted to be patentable for at least the same reasons as claim 1.

Claim 4 recites in pertinent part, "wherein the constraint is whether a resource constraint value of the second instruction is larger than a number of remaining clock cycles, the resource constraint value being calculated by dividing a total number of instructions which are to be processed by the hardware resource and whose execution timings have not been decided, by a maximum number of instructions that can be processed in parallel by the hardware resource." Palem is completely silent as to calculating a resource constraint value, let alone suggest doing so in the manner set forth in claim 4. Claims 8 and 10 recite features similar to claim 4 and are submitted to be patentable for at least the same reasons as claim 4.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently (noting that "inherency may not be established by probabilities or possibilities", *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999)), in a single prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that Palem does not anticipate the independent claims, nor any claim dependent thereon.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as the independent claims are patentable

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for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

Based on the foregoing, it is respectfully submitted that all pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejection under 35 U.S.C. § 102 be withdrawn.

CONCLUSION

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP
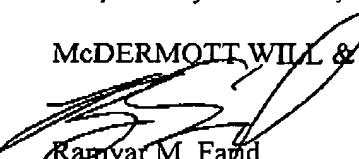
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